

What Is Claimed Is:

1. Housing structure for mounting optical elements, in particular of a projection lens housing in a projection exposure system for manufacturing semiconductor elements, wherein attachment locations with connecting parts, for connection to a supporting structure being provided on structural elements, wherein the connecting parts comprise supporting elements with mounting flanges for connection to the supporting structure, and wherein the supporting elements are connected to the structural elements in such a way that supporting forces, in particular weight forces, are taken up essentially by pressure forces and shear forces.

2. Housing structure according to Claim 1, wherein said connections between the structural elements, said supporting elements and said associated mounting flange are effected essentially by means of adhesive surfaces.

3. Housing structure according to Claim 1, wherein said structural elements are made of materials to which the group comprising glass, ceramic and glass ceramic belongs.

4. Housing structure according to Claim 1, wherein said supporting elements comprise a metal supporting element.

5. Housing structure according to Claim 1, wherein at least three supporting elements, distributed over the periphery, act on said structural elements.

6. Housing structure according to Claim 5, wherein said supporting elements act on an at least approximately centrally arranged structure reinforcing plate.

7. Housing structure according to Claim 1, wherein said supporting elements each have at least approximately an L-shape with a mounting flange.

8. Housing structure according to Claim 7, wherein said associated structural element lies on a horizontal leg of said L-shape and in that the vertical leg of the L-shape lies against the external periphery of said structural element, said mounting flange adjoining the vertical leg of the L-shape in at least approximately the horizontal direction.

9. Housing structure according to Claim 8, wherein adhesive surfaces are arranged between said two legs of the L-shape of said supporting element and said associated structural element.

10. Housing structure according to Claim 7, wherein said structural element is, in the region of the horizontal leg of the L-shape, provided with a through-bore, through which a prestressed screw is passed and connected to the horizontal leg of the L-shape.

11. Housing structure according to Claim 7, wherein said structural element is, in the region of said vertical leg of the L-shape, provided with a through-bore, through which a prestressed screw is passed and by means of which said vertical leg of the L-shape is connected to said structural element.

12. Housing structure according to Claim 1, wherein said supporting elements each have a U-shape seen in cross section, from which said mounting flange branches off, said associated structural element being received between said two U-legs.

13. Housing structure according to Claim 12, wherein said structural element is provided with a through-bore, through which a screw is passed, which is connected to said two U-legs of said supporting element in such a way that the two U-legs exert a prestressing force on said structural element.

14. Housing structure according to Claim 1, wherein said supporting element comprises two clamping plates arranged at a distance from one another, between which said associated structural element is received, a peripheral plate running parallel to the outer wall of said structural element, and a mounting flange connected to said two clamping plates and said peripheral plate.

15. Housing structure according to Claim 14, wherein said mounting flange has at least approximately a T-shape, one T-leg forming said mounting flange, and connecting elements, connecting said two clamping plates and said peripheral plate to said mounting flange, being arranged on a leg arranged at right angles to the said leg.

16. Housing structure according to Claim 15, wherein said connecting elements are designed as screws with spring elements.

17. Housing structure according to Claim 14, wherein adhesive surfaces are arranged between said clamping plates, said peripheral plate and said structural element.

18. Housing structure according to Claim 14, wherein said two clamping plates are provided with screws, which are screwed into said structural element in such a way that a prestress is exerted on said adhesive surfaces.